

white; the fur of the other parts of the back and sides varied from dark red-brown to reddish white or even white; and the various intermediate shades, sometimes the pale reddish-white ones, were darker on the middle of the hinder part of the back.

In most of the specimens the outer sides of the arms and shoulders were the same colour as the back; but in the one that has the back nearly white the hairs of the shoulders and the outside of the fore and hind legs look white from their white tips, though they are deep black for two-thirds of their length; and in one specimen the outside of the arm and the shoulder are as black as the hand, and the whole of the fur of the body has a black base to the hairs. The whiskers and sides of the neck are the same colour as the back. One of the specimens, of a pale foxy colour, is undoubtedly a male; the red and white specimens are probably males, but the skins do not bear any mark of the sex.

---

April 18, 1871.

Dr. E. Hamilton, F.Z.S., in the Chair.

The Secretary read the following report on the additions to the Society's Menagerie during the month of March 1871.

The total number of registered additions to the Society's Menagerie during the month of March 1871 was 110, of which 6 were by birth, 52 by presentation, 45 by purchase, 2 by exchange, and 5 were animals received on deposit. The total number of departures during the same period by death and removals was 94, showing a net addition of 16 individuals to the collection during the month.

The most noticeable arrivals during the month were:—

1. A Squirrel from Acapulco, in Western Mexico, presented March 2 by Lieut. G. R. Bromley, R.N., which appears to agree best with *Sciurus castanonotus* of Baird, described in the 'Report on the Mammals collected by the Mexican Boundary Survey,' p. 35, and figured pl. 5.

2. A young male Cape Hunting Dog (*Lycan pictus*) purchased March 15. This peculiar Carnivore has not been represented in the Society's collection for many years. The last individuals exhibited were those that died in 1855\*.

3. Two male Amherst's Pheasants (*Thaumalea amherstiae*), purchased March 18, out of a collection of Chinese Pheasants deposited in the Society's Gardens some time previously. These birds are believed to have been received from the same collectors as those employed by Mr. J. J. Stone—concerning which I have made remarks P. Z. S. 1869, p. 468, and 1870, p. 128. Further details on the habits of this bird and the mode of its capture at Ta-t sien-lou

\* See P. Z. S. 1860, p. 180.





are given in a very interesting letter from M. L. D. Carreau, Apostolic Missionary in Thibet, published in a recent number of the 'Bulletin' of the Société d'Acclimatation of Paris (ser. 2, vii. p. 582).

4. A Civet Cat (*Viverra*) from Quiah, north of the Cameroons river, purchased March 27, the determination of which has caused me some little difficulty. It is manifestly specifically different from the Civet Cat now in the Society's collection, which was presented in 1860 by Mr. Edmund Gabriel, H.B.M. Commissioner at Loanda, and was, I believe, obtained in the vicinity of that city. The only second species of African Civet Cat described is, as far as I know, *Viverra poortmanni*, Pucheran\*, "*similis V. civettæ, sed major vitæque oculari nigra nasum non transeunte.*" This does not agree at all well with our newly acquired animal, which is remarkable for its long rounded and Genet-like tail, and for the much greater distinctness of the bands on the body than in *V. civetta*. But the black ocular band *does not* cross the nose in the Angolan animal, whereas it does in the specimen lately received from Quiah. Under these circumstances I cannot at present undertake to decide which of them (if either) is referable to *Viverra poortmanni*, and must wait until their death affords me an opportunity of making an accurate examination of them.

The accompanying figure by Mr. Smit (Plate XXIX.) will serve to render this doubtful animal more easily recognizable.

---

Mr. H. E. Dresser, F.Z.S., exhibited a specimen of the Yellow-billed Cuckoo (*Coccyzus americanus*) which had been picked up dead in a wood near Aberystwith by Mr. C. J. Williams, and sent up to town for examination by Captain Coscus of Unys Hir House, Llandovey, in whose collection it had remained. This made the fifth occurrence of this Cuckoo in Great Britain on record, four having been recorded by Yarrell.

The specimen above referred to showed no signs of having been in captivity, and was apparently a young bird.

---

Sir Victor Brooke, Bart., F.Z.S., exhibited and made remarks on a mounted specimen of an Esquimaux Curlew (*Numenius borealis*) which had been recently obtained near Sligo, in Ireland, and belonged to his own collection.

---

Prof. Owen, F.R.S., F.Z.S., read the second part of his memoir on the Dodo (*Didus ineptus*). This communication contained notes based on an articulated specimen of the skeleton of this extinct bird which had been recently prepared for the collection of the British Museum from bones transmitted from the Mauritius by Mr. G. Clark, C.M.Z.S.

This paper will be published in the Society's Transactions.

\* Rev. Zool. 1855, p. 304, et Arch. d. Mus. x. p. 109, pl. ix.



The following papers were read :—

1. On Japanese recent Brachiopoda. By THOMAS DAVIDSON, Esq., F.R.S., F.G.S., &c. (Communicated by J. GWYN JEFFREYS, Esq., F.Z.S.)

[Received April 18, 1871.]

(Plates XXX. & XXXI.)

It is to Mr. Arthur Adams that we are indebted for the discovery of by far the largest number of species of Brachiopoda hitherto procured from the Japanese waters. These species were dredged by him during the period extending from 1859 to 1861, and he gave a very brief account of them, without illustrations (if we except a single figure of *T. davidsoni*), in the 'Annals & Magazine of Natural History' for 1860 and 1863, as well as in the 'Proceedings of the Zoological Society' for 1867.

Mr. Adams enumerates the following species :—

- |  |   |
|--|---|
| 1. <i>Terebratulina japonica</i> , Sow.                | 10. <i>Terebratella mariae</i> , Adams. |
| 2. — <i>caput-serpentis</i> , Linné.                   | 11. <i>Ismenia sanguinea</i> , Chemn.   |
| 3. — <i>curringii</i> , Dav.                           | 12. — <i>reevei</i> , Adams.            |
| 4. <i>Terebratula davidsoni</i> ,<br>Adams.            | 13. <i>Rhynchonella lucida</i> , Gould. |
| 5. <i>Waldheimia cranium</i> , Gmel.                   | 14. — <i>woodwardii</i> , Adams.        |
| 6. — <i>septigera</i> , Lovén.                         | 15. <i>Crania japonica</i> , Adams.     |
| 7. — <i>picta</i> , Chemn.                             | 16. <i>Discina stella</i> , Gould.      |
| 8. — <i>grayii</i> , Dav.                              | 17. <i>Lingula tumidula</i> , Reeve.    |
| 9. <i>Terebratella coreanica</i> ,<br>Adams and Reeve. | 18. — <i>smaragdina</i> , Adams.        |
|  | 19. — <i>jaspidea</i> , Adams.          |
|  | 20. — <i>lepidula</i> , Adams.          |

At the suggestion of Mr. A. Adams as well as Mr. Jeffreys, I have examined the original specimens of the shells above named; and I now beg to submit to the Zoological Society a revised list accompanied by illustrations of all the species.

It would result from my examination that the shells attributed to *Waldheimia cranium* and to *W. septigera* in Mr. Adam's paper will have to be referred to other species, as no authenticated example of those forms have, to my knowledge, been hitherto obtained from the waters of Japan. Some other modifications to the list will also be required, to which we will refer in the sequel. I will likewise add descriptions and figures of three or four more species that are either new or had been found in those waters by other naturalists.

No sea of a similar extent to that of Japan has furnished us with so large a series of species of Brachiopoda; and as their habitat as well as the depth at which they occur has been accurately determined by Mr. A. Adams, it is important that the identification of the species should be carefully determined and discussed.

The study of the recent Brachiopoda has been much increased and advanced during the last few years, thanks to the numerous dredging-

expeditions conducted by experienced naturalists, and extended to various latitudes; but there remains still much to be done before the true specific claims of all the described species will have been determined; even now Mr. W. H. Dall, of the Smithsonian Institution of Washington, has attempted a revision of the *Terebratulidæ*, in an able and lengthened communication which will be found published in the sixth volume of the 'American Journal of Conchology' (1870), to which I shall have to refer in the sequel.

Fam. TEREBRATULIDÆ, Cuvier.

In his recent publications Mr. Dall has proposed to subdivide the family into the genera *Terebratula*, *Terebratulina*, *Megerlia*, *Magas*, *Kraussina*, *Bouchardia*, *Platidia* (= *Morrisia*), *Megathyris* (= *Argiope*), ? *Thecidium*, to which he adds as subgenera *Laqueus*, *Ismenia*, *Magasella*, and *Cistella*. Dr. Leopold v. Schrenk would also consider *Rhynchonella* to be a subgenus of *Terebratula*; but in this view he will find but few supporters; and I regret likewise that Prof. Quenstedt should not have seen the propriety of frankly adopting Fischer de Waldheim's excellent genus *Rhynchonella*, one so clearly separated from *Terebratula* by the characters of its animal as well as by the structure of its shell. *Ismenia* Mr. Dall now relinquishes, having discovered that it is synonymous with *Megerlia*. Much difference of opinion has also been expressed as to the absolute necessity of substituting the term *Megathyris* for that of *Argiope*, a name previously made use of by Savigny for a genus of Egyptian Spiders. Mr. Jeffreys maintains that such a double application of the name in two different departments of zoology is not a reason for repudiating the second application of the same name, although such a practice ought to be avoided. The name *Argiope* has been in such general use for the shells to which it is referred, that I should regret to feel obliged to substitute that of *Megathyris*.

If we examine the various species of which the genus *Terebratella* is composed, we shall perceive a certain amount of modification not only in the length and elevation of the median septum, but likewise of the point at which the lateral branches of the loop become attached to the septum, this connexion being much closer to the beak or to the front in some species than in others, the loop itself, as may be seen by comparing such species as *T. dorsata* or *T. frontalis* with *T. spitzbergensis*, being likewise much more developed in some forms than in others; so that it becomes necessary to concede a certain variation in the internal details of the species of the same genus, and not to look upon each small deviation from the selected type as offering valid grounds for the creation of a separate subgenus. Mr. Dall proposes the adoption of a subgenus *Magasella*, of which my *Terebratella evansi* would serve as a type; but I feel more inclined to consider it a modification or subgenus of *Terebratella* than of *Magas*, from having noticed that in some species, such as *M. flexuosa*, the loop agrees exactly with that of *Terebratella*, while the

septum is elevated as in *Magasella*. Indeed I am not quite satisfied as to the genus *Magas* having been represented in the recent state, although *T. patagonica* of Gould has been doubtfully referred to it.

Mr. Dall seems also inclined to separate *Thecidium* from the *Terebratulidæ*; but I do not feel convinced that he has clearly shown that Professors Suess, Deslongchamps, King, myself, and others have so much erred in considering the excavated lobes or crescents in the dorsal valve to be homologues of the loop. But that question may require further examination; and as no specimen of the genus has been hitherto obtained from the Japanese waters, I will defer the discussion to another occasion.

#### Genus TEREBRATULA, Llhwyd.

But very few recent species have been discovered. *Terebratula vitrea*, Born, *T. minor*, Philippi & Suess, *T. sphæroidea*, Phil., *T. uva*, Brod., and *T. cubensis*, Pourtales, have been referred to it; but it is still a question whether *T. cubensis* and *T. minor* are more than varieties of *T. vitrea*. A shell bearing great resemblance to the fossil *T. sphæroidea* of Philippi was also dredged by Messrs. Jeffreys and Kent near the coast of Portugal. Mr. Dall adds *T. unguiculus* (Cooper) to the recent species of the genus *Terebratula*; but I feel satisfied that Cooper's species will be more correctly placed in the genus or subgenus *Terebratulina*. From the Japanese waters we are acquainted with but a single species.

TEREBRATULA MINOR, Philippi & Suess. (Plate XXX. figs. 10, 11, 12.)

*Terebratula vitrea*, var. *minor*, Philippi, 1836.

*Terebratula affinis*, Calcara, 1845.

*Terebratula davidsoni*, A. Adams, Proc. Zool. Soc. p. 314, pl. 19. fig. 30, 1867.

This shell has been well described by Mr. Adams in the 'Proceedings of the Zoological Society.' Mr. Jeffreys, however, is of opinion that the Japanese specimens cannot be distinguished from the pliocene and recent specimens known under the designation of *T. minor* or *affinis*; and I must admit that Mr. Adams's two examples bear a good deal of resemblance to the European shell.

*Hab.* Dredged by Mr. A. Adams at Satanomosaki in 55 fathoms.

#### Subgenus TEREBRATULINA, D'Orb.

I am inclined to consider this to be a subgenus of *Terebratula*, as the characters of its loop so nearly approach to those of the last-named genus. The number of recent species attributable to this subgenus has been considerably exaggerated, and several of them are no more than local variations or synonyms of the well-known and far spread *T. caput-serpentis*; *T. japonica*, *T. septentrionalis*, *T. angusta*, *T. abyssicola*, *T. cancellata*, *T. cunningii*, and one or two more seem referable to the Linnean species. Mr. Dall believes *T.*

*cailletti*, Crosse, to be a good species; and perhaps so likewise is *T. unguiculus* of Cooper. *T. radiata*, Reeve, is certainly so.

From the Japanese waters Mr. Adams enumerates three or four species which appear to be all varieties or different states of growth of

*TEREBRATULA CAPUT-SERPENTIS*, Linn. sp. (Plate XXX. figs. 7, 8, 9.)

*Terebratula caput-serpentis*, *T. japonica*, *T. cumingii*?, A. Adams, Annals & Mag. of Nat. Hist. 3rd ser. vol. xi. p. 98, 1863.

Mr. L. Reeve observes, in his 'Monograph of recent Brachiopoda,' that "*T. japonica* is closely allied to *T. caput-serpentis*, and is without doubt its representative in the Corean and Japanese waters;" and in this view Mr. Jeffreys fully concurs.

*Hab.* Mr. A. Adams got:—*T. caput-serpentis* living at Tsu-Sima from 26 fathoms (sand and shell bottom), at Tsusaki 55 fathoms, Mino-Sima 63 fathoms; the variety *japonica* living at Tsusaki 55 fathoms, and Gotto, 48 fathoms, and in the Straits of Korea from 63 fathoms, and sixteen miles from Mino-Sima, the bottom being coarse black sand and broken shells; the variety *angusta* living from 54 fathoms off the island of Guelpart, seven miles from the shore, the bottom being black sandy mud. *T. caput-serpentis* was also dredged by Mr. Adams along with *T. coreanica* and *W. picta* off the Straits of Korea in 46 fathoms, four miles from Tsussima (at Tsu-Sima), from a bottom of sand and broken shells. Mr. Adams's specimens of *T. cumingii*(?) are evidently young examples of *T. caput-serpentis*, and were dredged alive at Tsu-Sima, 26 fathoms, and at Mino-Sima in 63 fathoms.

#### Genus WALDHEIMIA, King.

A number of recent species have been proposed, described, and illustrated; but I think they may be reduced to the following nine, viz.:—*W. flavescens*, Val. apud Lamk.; *W. venosa*, Sol.; *W. cranium*, Müll.; *W. grayi*, Dav.; *W. picta*, Chemn.; *W. lenticularis*, Desh.; *W. septigera*, Lovén; *W. floridana*, Pourtales; and *W. raphaelis*, Dall.,—these three last presenting a good deal of general external resemblance, although said to be specifically distinguishable.

*WALDHEIMIA RAPHAELIS*, Dall. (Plate XXXI. fig. 9.)

*Waldheimia raphaelis*, Dall, American Journal of Conchology, vol. vi. p. 111, pl. vii. figs. *a-d*, 1870.

This species has been described by Mr. Dall, who informs me that he has compared it carefully with authentic examples of *W. septigera*, Lovén, and finds it quite distinct—that it is more than twice as large as the largest *W. septigera* and of a different colour, the Japanese shell being deep brown, with a slight rufous tinge, while the hinge-plate, septum, ovaria, and muscular impressions present notable differences in their details. Mr. A. Adams does not appear to have found Mr. Dall's shell or Lovén's *W. septigera* during his Japanese dredgings, and mistook for this last a specimen of *Terebratella spitzbergensis*.



*Hab.* Japanese coast near Yeddo, dredged there by Prof. R. Plumpelly. The original specimen forms part of the Smithsonian cabinet.

WALDHEIMIA PICTA, Chemnitz, sp. (Plate XXXI. fig. 10.)

*Waldheimia picta*, Adams, Annals & Mag. of Nat. Hist. vol. xi. 3rd ser. p. 99, 1863.

*Hab.* This well-known and beautiful species was obtained by Mr. A. Adams in 55 fathoms off Stormy Cape, Tschitikoff, or Satano-mosaki. Along with it was found *T. minor* or *davidsoni* of Adams.

WALDHEIMIA GRAYI, Dav. (Plate XXXI. figs. 7, 8.)

*Waldheimia grayi*, Adams, Annals & Mag. Nat. Hist. 3rd ser. vol. xi. p. 99, 1863.

*Terebratulula grayi*, Davids. P. Z. S. 1852, p. 76.

This fine species was fully described and illustrated by myself in the 'Proceedings' of this Society, and again by Mr. L. Reeve in his monograph of the genus *Terebratulula*. It is a very variable shell; and Mr. Adams believes that it was to a very transverse variation in shape of this species (fig. 8) that Mr. Gould had applied the designation of *T. transversa*; but some uncertainty would appear to prevail in this matter, as Gould's original specimen is no longer to be found. Most of his types belong to the Smithsonian collection.

*Hab.* It occurs abundantly with *T. coreanica* in the Bay of Hakodadi and Mososeki, where it was dredged up by Mr. A. Adams in 7 fathoms, some large stones having eight or ten examples adhering to it. Admiral Sir E. Belcher dredged it also in the Strait of Korea, and it could be seen washed up on a beach by thousands.

#### GENUS TEREBRATELLA, D'Orb.

This genus is largely represented in the recent state; but some further study of the named, described, and illustrated so-termed species will still be required before the exact number of true species can have been correctly determined. *T. dorsata*, Lam. (= *magellanica*, Chem.); *T. cruenta*, Dilwyn (= *T. zelandica*, Desh.); *T. rubicunda*, Sol., Mus. Banks; *T. caurina*, Gould; *T. coreanica*, Adams and Reeves (= *miniata*, Gould); *T. mariæ*, A. Adams; *T. pulvinata*, Gould; *T. frontalis*, Mid.; *T. bouchardii*, Dav.; and *T. labradorensis*, Sow., have been generally adopted; but the last four will demand further examination before their specific claims can be fully ascertained and confirmed,

TEREBRATELLA COREANICA, Adams & Reeve. (Plate XXXI. figs. 4, 5.)

*Terebratella coreanica*, Adams & Reeve, Voyage of the Samarang, p. 71, pl. xxi. fig. 3 (1850), and Adams, Annals and Mag. of Nat. Hist. 3rd ser. vol. xi. p. 99, 1863.

*T. coreanica*, Dr. Leopold v. Schrenck, Mollusken des Amur-Landes &c. p. 468, tab. xviii. figs. 1-7 (1867).



This beautiful species has been well described by Adams and Schrenck. It varies considerably in shape and colour, so much so, indeed, that Dr. Schrenck has proposed to distinguish some of its shapes by the designations of *Forma normalis*, *Forma longior*, and *Forma latior*; but all these variations merge one into the other when we examine a large series of specimens. Some young and middle-aged examples are of a light yellow colour radiated with red. Other specimens present a uniform red colour, especially deepened in tint near to, and at, the concentric lines of growth. Some examples have also attained to 2 inches in length, with a slightly greater breadth.

*Hab.* Dr. Schrenck states this shell to be the most common of all the Brachiopoda in the sea of North Japan. Mr. A. Adams obtained it abundantly in 7 fathoms, along with *W. grayi*, at Hakodadi, also off Okerisi Island in 25 to 35 fathoms, six miles distant from the shore, and from a bottom of coral and rock. It occurs also at a depth of 48 fathoms in the Straits of Korea and in several other parts of the Korean archipelago.

A yellow *Terebratula* (Plate XXXI. fig. 6) was sent to me by Mr. A. Adams as a yellow variety of *T. coreanica*, and as having been dredged at Hakodadi; but I feel considerable uncertainty as to its being thus correctly identified. The loop was unfortunately entirely broken, so that I could not ascertain its internal characters. In external shape it much resembles some young examples of *Waldheimia venosa* or of *Terebratella pulvinata*. I will not, therefore, venture upon a specific identification, but have given a figure of the shell in the hope that it may be hereafter properly identified.

TEREBRATELLA MARIE, A. Adams. (Plate XXX. figs. 15, 16, 17.)

*Terebratella mariæ*, Adams, Annals & Mag. of Nat. Hist. 3rd ser. vol. v. p. 412, May 1860; and Annals, 3rd ser. vol. xi. Feb. 1863.

This pretty and very interesting little species was correctly described by Mr. A. Adams. It is a very important shell, as it nearly approaches in shape and character to the Pliocene species from Sicily, described by Seguenza as the *Terebratella septata* of Philippi. It is of a pure white colour, with numerous delicate concentric lines of growth. None of the specimens found by Mr. Adams seems to have exceeded some 6 lines in length by 4 in breadth. It is considered by Mr. Jeffreys the living representative of the Sicilian fossil species; but this last attained much larger proportions, and would appear to be more finely punctuated than is the Japanese shell, so that I should not like to affirm the positive identity of the two shells, although Mr. Jeffreys may be correct in his conclusions.

*Hab.* Uruga, 21 fathoms; Gotto, 48 fathoms; Satanomosaki, 55 fathoms.

TEREBRATELLA SPITZBERGENSIS, Dav. (Plate XXX. figs. 13, 14.)

This well-known species, according to Torell, seems to have been PROC. ZOOLOG. SOC.—1871, No. XX.

first noticed by Sir C. Lyell in his paper on the rising of Sweden (Phil. Trans. p. 36, tab. 2. figs. 32, 33, 1835), but that eminent geologist did not apply to it any specific denomination. In 1837 Hisinger confounded it with *T. caput-serpentis*; and in his memoir, 'Bidrag till Spitzbergens Molluskfauna,' p. 121, tab. i. fig. 1, 1859, Prof. O. Torell gave an incomplete illustration of its loop. I have therefore availed myself of the present opportunity to add a complete figure of the interior of the dorsal valve from a Japanese specimen of the species.

*Hab.* This shell was detected by myself among some specimens dredged by Mr. A. Adams at Satanomosaki in 55 fathoms. Mr. Jeffreys has also furnished me with the following list of localities where the species has been found:—Hornsund and Bellsund, Spitzbergen, 40–80 fathoms (*Torell*); Wellington Channel (*Belcher*); Shetland, 35 miles N.N.W. of Unst, 90–100 fathoms; Channel slope, about 185 miles from Cape Clear and Ushant, and 165 miles from the Scilly isles, 358 fathoms, living attached to a piece of coral, *Lophohelia perforata*; Channel slope, not far from last locality, in 539 fathoms; off Cape St. Vincent, on the coast of Spain, 292 fathoms (*Jeffreys*). It has also been recorded from Spitzbergen by Goodsir, and by P. P. Carpenter from Murray Bay, Gulf of St. Lawrence. Mr. Jeffreys mentions it likewise in his paper entitled "Report on Uddevalla Fossils," published in the proceedings of the British Association. Mr. Dall had inadvertently referred this species to his subgenus *Magasella*, but is now of opinion that it should be left where I had originally placed it in 1845.

#### Subgenus LAQUEUS, Dall.

This is a subgenus recently proposed by Mr. Dall for the reception of shells which, like *T. californica*, Koch, and *T. rubella*, Sow., have the reflected part of the loop attached by two lateral processes, not to the septum nor to the septal processes, but to the hæmal portions of the loop (Plate XXX. fig. 22).

LAQUEUS RUBELLA, Sow., sp. (Plate XXX. figs. 18–22.)

*Terebratulula rubella*, Sow. Thesaurus Conchyliorum, vol. i. p. 350, pl. 69. figs. 40, 41, 42, 1846.

*Waldheimia cranium*, A. Adams (but not of Müller), Annals and Mag. of Nat. Hist. vol. xi. 3rd ser., Feb. 1863.

*Laqueus suffusa*, Dall, n. sp.?, American Journal of Conch. vol. i. part 2, p. 125, pl. 7. figs. *g*, *h*, *s*, 1870.

This is an important Japanese species; it varies much in shape and coloration, and especially so with age. Having had an opportunity of examining a rather large series of specimens, I believe myself justified in stating that the *L. suffusa* of Dall is a half-grown example of Sowerby's species. Mr. Jeffreys and myself have also ascertained that the shell referred by Mr. A. Adams to *W. cranium*, from Japan, belongs likewise to the species under description.

When young, *L. rubella* has an oblong-ovate shape, tapering and

rounded at the front, but when full-grown is nearly straight, or even sometimes slightly sinuated at the frontal margin. The different variations I have observed in this shell are figured in Plate XXX. The foramen is small, and with age becomes gradually more distant from the hinge-line by the development of the deltidium plates. The surface is smooth. In colour it varies considerably: some specimens are ash white; others have a general salmon-colour, which deepens into orange-red near the lines of growth or margins of the shell. In some examples, besides a general reddish tint, a few ruddy rays mark the lateral portions of the shell, but rarely so strongly defined as in Sowerby's figure, in which the coloration is exaggerated.

*Hab.* Sowerby states that his specimen of *T. rubella* was obtained from Japan. Mr. A. Adams dredged it from a clear stony bottom off the pretty little island of Kuro-Sima, at a depth of 35 fathoms. Prof. R. Plumpelly gives as its habitat the wharf at Yokohama, Japan (*Dall*).

#### Subgenus MAGASELLA, Dall.

This subgenus would comprise the following recent species:—*M. evansi*, Dav.; *M. crenulata*, Sow.; *M. inconspicua*, Sow. (according to Dall); *M. flexuosa*, King; *M. (Ter.) suffusa*, Reeve (of this species I possess the original specimen, and can assert that it possesses the elevated septum and loop of *Magasella*); *M. lævis*, Dall; *M. (T.) Cumingii*, Dav.?: and the following two new Japanese species:—

#### MAGASELLA ADAMSI, Dav. (Plate XXX. figs. 23, 24.)

Shell small, nearly circular, as broad as long; dorsal valve slightly convex, and marked with about eleven more or less prominent ribs, of which the central one, in the dorsal valve, is both the largest and most elevated. Ventral valve deeper than the opposite one, with about twelve ribs, of which the two central ones are both the largest and most prominent, leaving a deepish median sulcus between them; beak truncated by a rather large incomplete foramen; deltidium-plates small; shell-punctures large and prominent; colour white. In the interior of the dorsal valve there exists a *Magasella*-shaped prominent septum, extending from under the umbonal beak to about half the length of the valve, and to the lateral sides of it are attached the principal pair of lamellæ prior to becoming reflected. Length 2, width 2, depth 1 line.

*Hab.* Two examples of this small species were dredged by Mr. A. Adams in 26 fathoms water in the sea of Japan, off the island of Kuro-puna. In some specimens the ribs are almost obsolete.

#### MAGASELLA GOULDI, Dall, MS. (Plate XXXI. fig. 11, *a*, *b*, *c*.)

Shell small, transversely oval, wider than long; hinge-line nearly as long as the breadth of the shell; beak somewhat produced and slightly incurved, with a large incomplete horseshoe-shaped foramen; deltidium-plates very small and widely separated; false area flattened. Ventral valve deep; dorsal valve slightly convex. Surface of each

valve marked with about eighteen ribs; of these, two fine median ones lie in a kind of sulcus in each valve and extend from the umbo to the front, while the others are both irregular in width, stouter, and do not extend to more than half of the length of the valve from the margin. The lines of growth are well marked. The shell is of a yellowish colour, with strong rose-colour on the ribs and towards the edges. In the interior of the dorsal valve there is no hinge-plate or distinct cardinal process; the muscular scars are thick and excavated above; the septum and loop is similar to that described in the preceding species. Length 2, width nearly 3 lines.

Mr. Dall has kindly allowed me to add this description to my notes on Japanese species. A single example was found by him attached to a specimen of *T. coreanica* or *miniata*, Gould, that had been dredged at Hakodadi in 60 fathoms of water.

It evidently much approaches in character to my *M. adamsi*; but there are differences between the two that cannot be cleared away by the inspection of a single specimen. It must therefore be left for future observers to determine whether the two may not constitute variations in form of a single species.

#### Genus MEGERLIA, King.

*M. truncata*, Linné, *M. monstrosa*, Scacchi (if not a variety of the first-named species), *M. sanguinea*, Chem., and its var. *reevei*, Adams, are the only recent species attributable to this genus. Mr. Dall is of opinion that there is no difference in the interior of *M. sanguinea* and *M. truncata*, except that the lateral lobes are open instead of closed in *M. truncata*, and that this and the external shape of the shell may perhaps serve as characters for the creation of a subsection. I do not myself, however, see the necessity of coin- ing for it another subgeneric designation.

MEGERLIA SANGUINEA, Chemnitz. (Plate XXXI. figs. 1, 2.)

*Anomia sanguinea*, Chemnitz, 1785, = *Terebratulula erythroleuca*, Quoy, = *T. sanguinea* and *pulchella*, Sow., = *Megerlia sanguinea*, Dav., = *Ismenia sanguinea*, Adams and Dall.

All the specimens I have seen of this beautiful little shell were of a whitish or rather yellowish colour freckled with bright crimson.

*Hab.* *M. sanguinea* has been found in several localities. Mr. A. Adams dredged it alive at Mino-Sima in 63 fathoms. It is common near the Philippine and Sandwich islands, and was dredged plentifully in 1859 at Tahiti by Mr. Deplanche.

Var. REEVEI (Plate XXXI. fig. 3) = *Ismenia reevei*, A. Adams, Ann. & Mag. Nat. Hist. vol. xi. 3rd. ser. p. 99, 1863.

Only one example of this shell appears to have been found by Mr. A. Adams. Its colour is pure white, and it closely resembles the type of *M. sanguinea* in all other respects, except perhaps in size, the specimen of *M. reevei* dredged by Mr. Adams exceeding somewhat in proportions any of the examples of *M. sanguinea* that have



come under my notice. It measured 8 lines in length by 7 in width and 4 in depth.

*Hab.* Gotto, 48 fathoms.

Family RHYNCHONELLIDÆ, J. E. Gray.

Genus RHYNCHONELLA, Fischer de Waldheim.

The recent forms are few in number. *Rh. psittacea*, Gmelin, = var. *woodwardi*, Adams (?). *Rh. nigricans*, Sow., *Rh. grayi*, Woodward, *Rh. lucida*, Gould, and *Rh. sicula*, Sequenza, MS., are all the species with which we are at present acquainted.

RHYNCHONELLA PSITTACEA, Gmelin, var. WOODWARDI, A. Adams. (Plate XXXI. fig. 12.)

*Rh. woodwardi*, A. Adams, Annals & Mag. of Nat. Hist. 3rd ser. vol. xi. p. 100, 1863.

M. Adams states in his paper that "this species differs from *Rh. psittacea* in being concentrically striolate instead of radiately grooved; the beak, moreover, is smaller and less curved; the form is more broadly triangular, and the ventral margin rounded and produced in the middle. The young possess the same characters seen in the adult. *Hab.* Gotto, 48 fathoms; also off Rifunsiri Island, 4 miles from the shore, in 35 fathoms, from a bottom of coral, broken shells, and stones."

I have been able to examine two examples of this shell, and could distinctly perceive faintly marked radiating striæ, similar to those that cover the surface of *R. psittacea*. I cannot help thinking, and I am confirmed in this opinion by Mr. Jeffreys, that the *R. woodwardi* of Adams is no more than a local variety of *R. psittacea*. The colour of the two specimens obtained by Mr. Adams are of a less bluish tint than we find usually in the shell last named; but some examples of *R. psittacea* from the northern European seas have also assumed that colour.

RHYNCHONELLA LUCIDA, Gould. (Plate XXXI. figs. 13, 14.)

*Rh. lucida*, Gould, Proc. Bost. Soc. Nat. Hist. p. 323, 1860, and Otia Conch. p. 121; Adams, Annals and Mag. of Nat. Hist. 3rd ser. vol. xi. p. 100, 1863.

Shell small, obtusely subrhomboidal or ovate, rather longer than wide; dorsal valve convex, almost gibbous; mesial fold wide, commencing to rise at about half the length of the valve. Ventral valve rather less convex or deep than the opposite one, and scooped out near the front in the form of a deepish sinus; beak acute, sharply incurved; foramen beneath the extremity of the beak, completed by a deltidium. Surface smooth, of a light whitish glassy grey; shell-structure fibrous. Length 6, width 5, depth 3 lines.

This very interesting species had never been completely described or illustrated. It was briefly noticed by Gould in 1860; but his observation that it might be taken for a small *T. vitrea* is quite in-



correct; for it bears no resemblance to that species, and is a true *Rhynchonella*, and approaches most in shape and surface to some small examples of the Tertiary *Rhynchonella bipartita* of Brocchi, and almost represents that species in the living state. In this last remark Mr. Jeffreys concurs with me.

*Hab.* Dr. Gould's specimens were dredged off the Japan coast, 30° 35' N., 130° 40' E., in 110 fathoms, sand, by Captain Stevens of the 'Hancock.' Mr. A. Adams obtained it at Satonomosaki, 55 fathoms, and at Gotto in 48 fathoms.

### Family LINGULIDÆ, Cuvier.

#### Genus LINGULA, Brug.

Mr. Dall has proposed a genus *Glottidia*, in which he has placed some of the species formerly classed with *Lingula*; but even now the number of recent so-termed species referred to the last-named genus are too numerous, and will require to be carefully studied and monographed.

The genus *Lingula* made its first appearance in the Lower Silurian rocks; and some of its fossil forms bear much general resemblance to one or two of the species now found alive, but are of course specifically distinct. Mr. A. Adams has dredged in the waters of Japan four species, which appear to be tolerably distinct.

#### LINGULA TUMIDULA, Reeve. (Plate XXX. fig. 1.)

*Lingula tumidula*, Reeve, Conch. Icon. sp. 2; A. Adams, Annals and Mag. of Nat. Hist. 3rd ser. vol. xi. p. 100, 1863.

I have seen but one Japanese specimen, attributed by Mr. Adams to Mr. Reeve's species. It is, however, a smaller shell, of a light yellow colour, with a reddish-brown spot near the beak. Exteriorly the shell is marked with a considerable number of close, almost equidistant, minute concentric projecting lines of growth, somewhat similar to those we see in *Lingula scotica* from the Carboniferous period.

*Hab.* From the mud of Tsaulian harbour, in the Korean archipelago, 7 fathoms.

#### LINGULA SMARAGDINA, A. Adams. (Plate XXX. fig. 2.)

*Lingula smaragdina*, A. Adams, Annals & Mag. of Nat. Hist. 3rd ser. vol. xi. p. 101, 1863.

It is of a bright green colour, whitish in the middle and near the beaks. Length 10, width 4 lines. It most resembles *L. hirundo*, Reeve.

*Hab.* Was found by Mr. A. Adams at Yobuko, 10 fathoms, mud, and also in the China sea.

#### LINGULA DUMORTIERI, Nyst. (Plate XXX. fig. 3.)

*Lingula dumortieri*, Nyst, Coq. et Polyp. Foss. de la Belgique, p. 337, pl. xxxiv. fig. 4, 1843.

*Lingula jaspidea*, A. Adams, Annals and Mag. of Nat. Hist. 3rd ser. vol. xi. p. 101, 1863.

Of the recent shell I have seen only one example, which had been dredged by Mr. A. Adams at Mososeki, in 7 fathoms, mud bottom. It is of an elongated oval shape, about 9 lines in length by 5 in breadth, tapering towards the front, and is of a warm yellow-brown colour.

Mr. Jeffreys is of opinion that this *Lingula* cannot be specifically distinguished from *Lingula dumortieri* from the Coralline Crag of Suffolk and of Belgium by any one character. He has compared it with three specimens of the latter, but in every one, where the outline and beak was complete, these exactly agreed with the Japanese recent species. All (both fossil and recent) have peculiar though slight and almost microscopic and close-set longitudinal lines, which, of course, are more distinct in the fossil than in the recent shell.

LINGULA LEPIDULA, A. Adams. (Plate XXX. fig. 4.)

*Lingula lepidula*, Adams, Annals & Mag. of Nat. Hist. 3rd ser. vol. xi. p. 101, 1863.

This is a small oval-shaped species, tapering a good deal at the beaks, about 4 lines in length by 2 in breadth. In colour it is yellowish, slightly tinted with green. Mr. Adams observes that it is as small as *L. semen*, and shaped like *L. ovalis*.

*Hab.* Mr. A. Adams dredged several examples in the inland sea, or, as the Japanese call it Seto-Uchi (Akasi) in ten fathoms, mud.

#### Family CRANIIDÆ, Dav.

##### Genus CRANIA, Retz, 1781.

Mr. Jeffreys informs me that it was Philipsson, and not Retz or Retzius, who first proposed the generic name of *Crania* ('Dissertatio historico-naturalis, sistens nova Testaceorum genera:' Lundæ, 1788). But Mr. Dall assures me that Retz had done so some years before Philipsson.

CRANIA JAPONICA, A. Adams. (Plate XXX. figs. 6, 6a.)

*Crania japonica*, Adams, Annals & Mag. of Nat. Hist. vol. xi. p. 100, 1863.

This is a small species, in which the central pair of muscular prominences are very much developed. All the valves found by Mr. Adams are a little worn.

*Hab.* From deep water, 71 fathoms, among the Gotto group of islands.

#### Family DISCINIDÆ, J. E. Gray.

##### Genus DISCINA, Lamarek.

DISCINA STELLA, Gould. (Plate XXX. fig. 5.)

*Discina stella*, Adams, Annals & Mag. of Nat. Hist. 3rd ser. vol. xi. p. 100, 1863.

*Hab.* Seto-Uchi (Akasi), 17 fathoms; Tsu-Sima, 17 fathoms; Tabu-Sima, 26 fathoms, on coral bottom; Tou-Sima, in 25 fathoms.

## EXPLANATION OF THE PLATES.

## PLATE XXX.

- Fig. 1. *Lingula tumidula*, Reeve.  
 2. — *smaragdina*, A. Adams.  
 3. — *dumortieri*, Nyst, = *L. jaspidea*, A. Adams.  
 4. — *lepidula*, A. Adams.  
 5. *Discina stella*, Gould.  
 6. *Crania japonica*, Gould.  
 7. *Terebratulina caput-serpentis*, Linné.  
 8. — —, var. *japonica*, Sow.  
 9. — —, var. *cumingii*, Dav.  
 10, 11, 12. *Terebratula minor*, Philippi, = *T. davidsoni*, Adams.  
 13. *Terebratella spitz-bergensis*, Dav. Fig. 13 *a*, enlarged.  
 14, 14 *a*. Ditto ditto, interior of ventral valve, enlarged.  
 15, 16, 17. *Terebratella mariæ*, A. Adams. Figs. 15 *a*, 16 *a*, enlarged;  
 fig. 17, interior, enlarged.  
 18–22. *Laqueus rubella*, Sow. Fig. 20, a young specimen; figs. 21 and  
 22, *L. suffusa*, Dall, his original figures.  
 23–24. *Magasella adamsi*, Dav. Figs. 23 *a*, 24 *a*, enlarged.

## PLATE XXXI.

- Figs. 1, 2. *Megerlia sanguinea*, Chemn. Figs. 2, 2 *a*, interior of dorsal valve,  
 enlarged.  
 3. — —, var. *M. recurvi*, Adams.  
 4, 5. *Terebratella coreanica*, Adams and Reeve.  
 6. *T.* — ?  
 7, 8. *Waldheimia grayi*, Dav., and var. *transversa*, Gould.  
 9. — *raphaelis*, Dall.  
 10. — *picta*, Chemnitz.  
 11. *Magasella gouldi*, Dall, MS. Fig. 11, *a*, *b*, *c*, enlarged.  
 12. *Rhynchonella psittacea*, Gmel., var. *woodwardi*, A. Adams.  
 13, 14. — *lucida*, Gould.

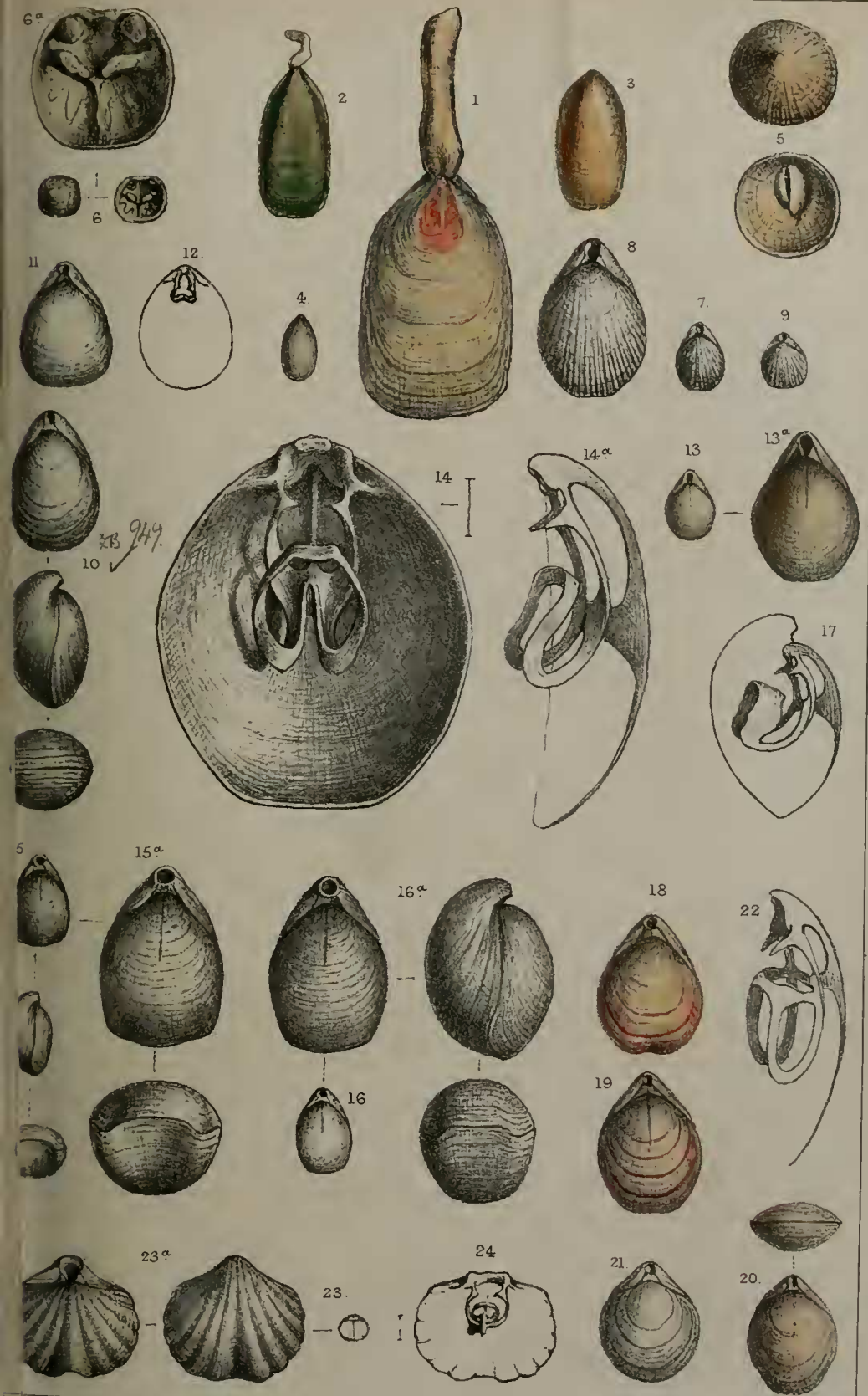
2. On a new Species of Long-tailed Titmouse from Southern Europe. By R. B. SHARPE, F.L.S., Librarian to the Society, &c., and H. E. DRESSER, F.Z.S. &c.

[Received April 4, 1871]

In a paper published in 'The Ibis' for 1868 (p. 295), Sharpe drew attention to the differences existing between the Long-tailed Titmice of Great Britain and Scandinavia, and gave a synopsis of the known species, six in number. At that time it was very uncertain whether the bird found in Spain was identical with the British species or not. We have lately received from our friend Major Irby a series of specimens killed near Gibraltar, and we can now safely affirm that the Spanish Long-tailed Titmouse constitutes a new and entirely distinct species, which we propose to call

*ACREDULA IRBII*, sp. nov.

*A. dorso pulchre cinereo unicolori, parte superiore et uropygio paululum roseo tinctis: capite laterali et cello postico nigerrimis:*



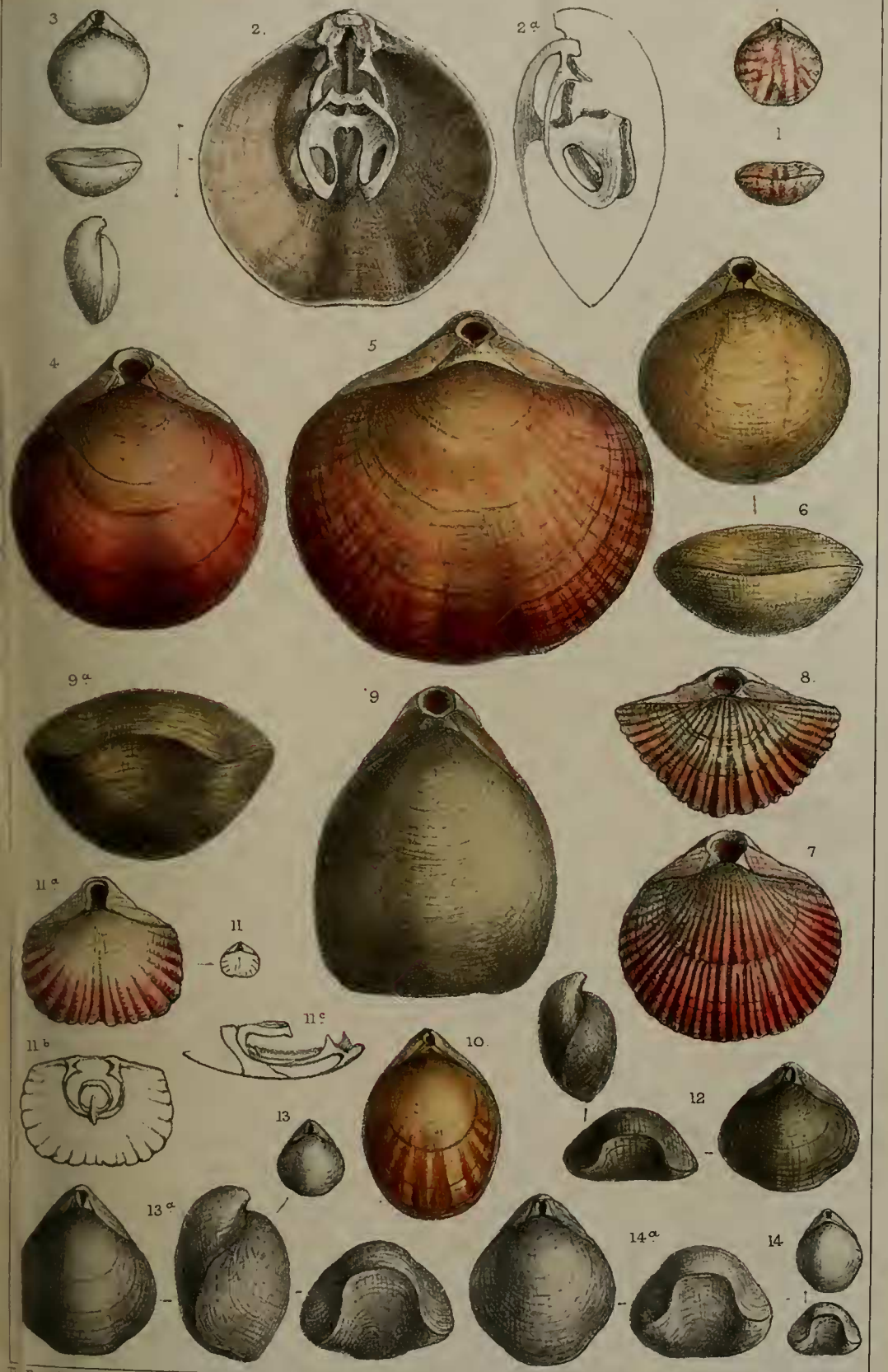
Davidson del. et lith

W West & Co. vnp

Japanese recent Brachiopoda.







Th. Davidson del et lith.

Japanese recent Brachiopoda.

W. West & Co. imp.



*pileo summo albido: genis albidis, brunneo striolatis: gutture albo: pectore roseo, parte superiore punctulis parvis brunneo notata.*

Long. tot. 4, culm. 0·3, al. 2·15, caud. 2·15, tars. 0·6, poll. et dec. Angl.

*Hab.* Southern Spain (*Irby*); Piedmont (*Salvadori*).

The present species is closely allied to *Acredula rosea* of England, but has the back blue-grey instead of black; the black bands on each side of the head are very broad and distinct, and the central white streak is proportionally narrow. We have named this species after Major Irby, well-known for his ornithological researches in India. We shall be able to show that during his residence in Andalusia he has exhibited no less energy; for he has forwarded to us a series of notes on all the birds of this country for publication in the 'Birds of Europe.'

The *Acredulæ* may thus be enumerated:—

1. *Acredula caudata* (L.). *Hab.* Scandinavia and the Northern Palæarctic Region generally.

2. *Acredula rosea* (Blyth). *Hab.* British Islands and probably France and the Netherlands.

3. *Acredula irbii*, S. & D. *Hab.* Southern Europe.

4. *Acredula trivirgata* (T. & S.). *Hab.* Japan.

5. *Acredula glaucogularis*, Gould (*A. swinhooi*, Pelz.). *Hab.* China.

6. *Acredula tephronota*, Günth. *Hab.* Asia Minor.

### 3. Contributions to the Ornithology of Madagascar.—Part II.

By R. B. SHARPE, F.L.S., Librarian to the Society, &c.

[Received April 4, 1871.]

(Plate XXXII.)

Mr. Crossley, whose excellent collections formed the basis of my former communication on this subject (P. Z. S. 1870, p. 384), has lately returned to England, bringing with him another consignment of natural-history specimens, amongst which are several fine birds. These have been submitted to me in due course by Mr. Cutter, of Great Russell Street; and the accompanying notes embody my observations on them. I may premise my description of the birds included in it by a few remarks relating to some of the species mentioned by me in my former paper, as some of the specimens now sent by Mr. Crossley afford us additional information respecting them. The numbers now mentioned refer to those prefixed to the various birds in the former article.

#### 1. HYPSSIPETES OUROVANG.

This bird should stand as *H. madagascariensis* (Müll.); cf. Gray's Hand-l. of B. i. p. 272, and Sharpe's Cat. Afr. B. p. 21.

## 2. TYLAS EDUARDI.

*Tylas eduardi*, Hartl.; Sharpe, Cat. Afr. B. p. 385.

Several specimens of this bird are in the collection just received. They differ somewhat in coloration, some examples having white marks on the throat and the bill of a yellowish horn-colour, the upper plumage being more tinged with brown. I believe these to be younger birds, as one of my specimens, evidently quite adult, has the throat jet-black like the rest of the head.

## 7. CEBLEPYRIS MAJOR.

*Ceblepyris major*, Sharpe, P. Z. S. 1870, p. 389.

*Campephaga major*, Sharpe, Cat. Afr. B. p. 53.

Additional specimens of this Shrike confirm the distinctness of the species from *C. cana*.

## 15. MYSTACORNIS CROSSLEYI.

*Mystacornis crossleyi*, Sharpe, P. Z. S. 1870, p. 392, pl. xxix., et Cat. Afr. B. p. 20.

Mr. Crossley, on seeing the plate of this species, was not a little astonished to find the birds placed on reeds, a locality never affected by the species at all. He told me that they ran along the ground in the thick forest, and were shot for him by the natives with blow-pipes; so in my recently published Catalogue I relegated the genus *Mystacornis* to the family *Timaliidae*, of which family there are certainly some forms present in the Æthiopian region. The reason that I originally referred the genus *Mystacornis* to the family *Sylviidae* was the fact of M. Grandidier having originally placed the typical species in the genus *Bernieria*, which I was always inclined to consider, along with *Tatare*, a Sylviine form closely allied to *Calamoherpe*. I had not at that time carefully noticed the remarks published by Mr. Edward Newton (*Ibis*, 1863, p. 343) to the effect that the first specimen of *Bernieria* which he obtained was seen "hopping about in a thicket," while the second example was "also among some thick bushes." It seems therefore that *Bernieria* and *Mystacornis* are not reed-birds at all; and I suppose that *Tatare* will prove to be a forest form also. Mr. George Robert Gray, in the 'Hand-list' (vol. i. p. 194), places *Tatare* in a subfamily, *Tatarinæ*, G. R. Gr., at the end of the family *Troglodytidae*, while *Bernieria* he places in his comprehensive genus *Criniger*, near to *C. syndactylus* (*Xenocichla syndactyla*). I believe that this is probably the correct position of *Bernieria*, viz. close to *Xenocichla*, but that *Tatare* and *Mystacornis* must certainly follow.

It will be noticed that Mr. Edward Newton (*l. c.*) says that the native name for *Bernieria madagascariensis* and *B. minor* were the same, "Tra-trak," and adds, "My people could not detect the difference, and called them both by the same name." During his recent visit to England, M. Jules Verreaux mentioned to me in the course of conversation that M. Grandidier had taken great pains to investigate the subject, and had assured himself that these two sup-







J G Keulemans del

M & N Harbort sculp

CORETHRURA INSULARIS

posed species were nothing more than sexes of the same bird, the large one being the male.

In the last collection brought home by Mr. Crossley was a specimen of a *Mystacornis* which I suppose must be the young bird; but it differs from the ordinary species in being of a dull sienna underneath and in having the head and neck of this colour also. It might very well be taken for a distinct species, but for the fact that in the female specimen already in my collection there is a slight tint of rufous on the crown.

### 37. CORETHRURA INSULARIS. (Plate XXXII.)

*Corethrura insularis*, Sharpe, P. Z. S. 1870, p. 300.

*Crex jardinei*, Verr. in Vins. Voy. Madag. Ann. B. p. 4 (1865); Schl. & Poll. Faun. Madag. Ois. p. 161 (1868).

In the last collection sent, there are some males of this species which clearly show that the bird is distinct from *Corethrura jardinii* and other species of *Corethrura*, as I had expected it to be. It is probably the *Crex jardinii* of Messrs. Verreaux and Schlegel; but it is to be distinguished from the last-named species by its much larger size and red throat. I subjoin a description of the adult male.

Head, throat, and breast rich chestnut; sides of the neck black, margined with white on each side of the feather, producing a streaked appearance; centre of the back and scapulars black, streaked like the sides of the neck, but with yellowish margins to the feathers instead of white; wing-coverts black, all the feathers margined with whitish; quills brownish black, irregularly varied with yellowish on the outer primaries; the secondaries deep black, irregularly streaked and spotted with rufous white; tail deep chestnut; belly black, longitudinally streaked with white, the abdomen and vent brownish; under tail-coverts chestnut, like the tail; bill black; feet yellowish brown.

Total length 6·2 inches, culm 0·5, wing 2·8, tail 1·9, tarsus 0·75, middle toe 1·15.

The following is a list of the additional species not before mentioned by me.

### Family CYPSELIDÆ.

#### 41. CYPSELUS GRACILIS, sp. n.

*Cypselus parvus* et *C. unicolor*, auct., ex Madagascar.

*C. æneo-niger*: *genis cum colli lateribus et corpore subtus umbrinofuscis*: *gutturæ paullo albicante, indistincte striato*.

Long. tot. 6·2, alæ 4·95, caudæ 2·1, rect. ext. 3·2, med. 2·1.

There can be little doubt that the Madagascar Swift above described is not identically the same as the continental bird. It is in every respect much darker, and the fork of the tail is not so long. The specimen described appears to me to be the oldest of the three brought home by Mr. Crossley, who has not attached any label of the exact locality to these specimens. They were a few which he brought with him on his return among his personal baggage, as the greater part of his collection was so unfortunate as just to reach

Paris as the investment of the city was completed, and the cases were shut up during the whole of the siege. Luckily no injury was done to any of the specimens.

Another example of this Swift only differs from the one described in having a few scarcely discernible edgings to the back-feathers, while the throat is distinctly mottled with black and white; another, seemingly younger, has the edgings to the dorsal feathers very distinct, and the whole of the throat white varied with little black markings.

I transcribe Dr. Sclater's description of *C. parvus* (from his paper in P. Z. S. 1865, p. 601) for the sake of comparison with that of the Madagascar bird.

“*Murino-fuscus, gutture albido fusco striolato: alis et cauda aeneo tinctis: cauda profundissime furcata: long. tota 7, alæ 5·4, caudæ 1·4, rect. ext. 4, med. 1·4.*”

Compared with the Madagascar skins these West-African examples are always very much paler in colour, rather stouter in form, and have the tail more conspicuously forked.

#### Family CORACIIDÆ.

##### Subfamily BRACHYPTERACIINÆ.

#### 42. GEOBIASTES SQUAMIGERA.

*Geobiastes squamigera* (Lafr.); Sharpe, Ibis, 1871, p. 186; *id.* Cat. Afr. B. p. 5 (1871).

One specimen, the same mentioned in my paper on the African *Coraciidæ* (Ibis, 1871, p. 184), and on which I founded the genus *Geobiastes*.

#### Family TURDIDÆ.

#### 43. COSSYPHA IMERINA.

*Cossypha imerina*, Hartl. Faun. Madag. p. 43 (1861); Verr. in Vins. Voy. Madag. Ann. B. p. 2 (1865); Schl. & Poll. Faun. Madag. p. 158 (1868).

*Cossypha emerina*, Grand. Rev. et Mag. de Zool. 1867, p. 359.

“Saralalan, January 28, 1870, February 1, 1870. Nossi Vola, February 1, 1870. Native name *Vorun poottat*.”

In his well-known ‘Ornithologischer Beitrag zur Fauna Madagascars,’ Dr. Hartlaub first described this pretty species, from an example brought home by Professor Peters from St. Augustine’s Bay, and preserved in spirits in the Berlin Museum. The birds which Mr. Crossley has forwarded agree in the main with the original description; but as no mention is made of the colouring of the tail, which forms one of the most distinctive characters, I cannot guarantee the absolute correctness of my identification. For the better settlement of the matter, therefore, I subjoin a detailed description of old and young birds, examples of both of which are contained in Mr. Crossley’s last consignment. I may mention that in his first collection an adult specimen was forwarded by him, which passed into the National collection. Mr. G. R. Gray was inclined to consider it



undescribed; but I am not aware that he has published any description either of this or of a beautiful new Goatsucker, also discovered by Mr. Crossley and purchased a year ago by the British Museum.

*Adult.* Above dull grey, the rump tinged with rufous, the upper tail-coverts being entirely of this latter colour; the cheeks, forehead, and eyebrow clearer grey, inclining to blue; the lesser wing-coverts dull grey like the back, the rest of the wing-coverts greyish black, as also are the quills, which are pale rufous on the base of the inner web; tail rufous, tipped with black, the two middle feathers being entirely black; throat and breast blue-grey, lower part of the breast, sides of the body, and the under wing- and tail-coverts orange-rufous; bill and legs greyish black, the soles of the feet yellowish. Total length 6 inches, culm 0.65, wing 2.9, tail 2.3, tarsus 0.85.

*Young.* Olive-brown, everywhere striped and spotted with ochre, the shaft of each feather being marked with an ochre stripe broadening out towards the tip into an apical spot, which is also margined with black; rump mottled with rufous; upper tail-coverts entirely rufous; wing-coverts mottled like the back; quills glossy brownish black, edged with rufous; tail rufous, the feathers shaded with brown towards the tip, the middle feathers brownish, edged with rufous; under surface of the body yellowish brown mottled with ochre, each feather being margined with blackish; the abdomen only slightly marked with black edgings to the feathers. Total length 6 inches, culm 0.65, wing 2.85, tail 2.1, tarsus 0.9.

Another specimen, apparently a little older, has a few grey feathers appearing here and there on the head and throat; and the breast is losing the mottled appearance and becoming entirely orange; so that it will be seen that the phases of plumage assumed by the bird are very similar to those of our common Robin (*Erithacus rubecula*). Apparently all *Cossyphæ* go through the same changes, as I have a series of the common *C. caffra* which exhibit like phases of dress.

#### Family NECTARINIIDÆ.

##### 44. NECTARINIA NOTATA.

*Certhia notata*, P. L. S. Müll. Naturh. Anhang, p. 99. no. 32 (1766, ex Buff.); Walden, Ibis, 1870, p. 25.

*Nectarinia angaladiana*, Hartl. Faun. Madag. p. 52; Roch & E. Newt. Ibis, 1862, p. 273; Sclater, P. Z. S. 1863, p. 162; E. Newt. Ibis, 1863, p. 343; A. Newt. P. Z. S. 1865, p. 834; Verr. in Vins. Voy. Madag. Ann. B. p. 2 (1865); Grand. Rev. et Mag. de Zool. 1867, p. 355; Schl. & Poll. Faun. Madag. Ois. p. 69 (1868); Sharpe, Cat. Afr. B. p. 38 (1871).

Two specimens from Saralalan.

#### Family PARIDÆ.

##### 45. HYPHERPES CORALLIROSTRIS.

*Hyperperpes corallirostris*, A. Newt. P. Z. S. 1863, p. 85, pl. 13; E. Newt. Ibis, 1863, p. 342.